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AMENDMENTS TO THE CLAIMS:

Amend the claims as follows:

1. (Currently Amended) A method for frequency correction in a multicarrier system, comprising:

- receiving a signal $(r_s[n])$ comprising a stream of data signals $(r_{c,i}[k])$,
- calculating an estimated phase offset $(\phi_{est}[k])$ for each data signal $(r_{c,i}[k])$ as a function of thereof,
- calculating a predicted phase offset $(\phi_A[k])$ for each data signal as a function of the estimated phase offset $(\phi_{est}[k])$ thereof and the estimated phase offset $(\phi_{est}[k-1])$ of a preceding one of the data signals $(r_{c,i}[k-1])$, and
- correcting the received signal $(r_s[n])$ by correcting a phase of each data signal $(r_{c,i}[k])$ as a function of the predicted phase offset $(\phi_A[k])$ thereof.

2. (Currently Amended) The method according to claim 1, comprising:

- calculating the predicted phase offset $(\phi_A[k])$ further as a function of the predicted phase offset $(\phi_A[k-1])$ of the preceding one of the data signals $(r_{c,i}[k-1])$, or
- calculating the predicted phase offset $(\phi_A[k])$ further as a function of the predicted phase offset $(\phi_A[k-1])$ of the preceding one of the data signals $(r_{c,i}[k-1])$ and the predicted phase offset $(\phi_A[k-2])$ of one of the data signals $(r_{c,i}[k-2])$ preceding the preceding one of the data signals $(r_{c,i}[k-1])$.

3.(currently amended) The method according to claim 1-~~or 2~~, comprising:

- calculating a phase correction offset $(\phi_{corr}[k])$ for each data signal $(r_{c,i}[k])$ as a function of the predicted phase offset $(\phi_A[k-1])$ of the preceding one of the data signals $(r_{c,i}[k])$, and

- correcting each data signal ($r_{C,i}[k]$) as a function of the phase correction offset ($\phi_{\text{corr},i}[k]$) thereof.

4. (currently amended) The method according to ~~one of the preceding~~ claim 1, comprising:

- separating each data signal ($r_{C,i}[k]$) in at least two data signal samples ($r_{C,i,1}[k], \dots, r_{C,i,N_{\text{fft}}}[k]$),
- calculating a predicted sample phase offset ($\phi_{S,i,1}[k], \dots, \phi_{S,i,N_{\text{fft}}}[k]$) for each of said data signal samples ($r_{C,i,1}[k], \dots, r_{C,i,N_{\text{fft}}}[k]$) as a function of the predicted phase offset ($\phi_A[k]$) of a corresponding one of the data signals ($r_{C,i}[k]$), and
- correcting the phase of each data signal ($r_{C,i}[k]$) further by correcting a phase of each of the data signal samples ($r_{C,i,1}[k], \dots, r_{C,i,N_{\text{fft}}}[k]$) as a function of a respective one of the predicted sample phase offsets ($\phi_{S,i,1}[k], \dots, \phi_{S,i,N_{\text{fft}}}[k]$).

5. (Currently Amended) The method according to claim 4, comprising:

- separating each data signal ($r_{C,i}[k]$) such that a first of the data signal samples ($r_{C,i,1}[k]$) represents the beginning of the corresponding one of the data signals ($r_{C,i}[k]$).

6. (Currently Amended) The method of claim 4 ~~or 5~~, comprising:

- calculating a sample phase correction offset ($\phi_{S,i,1}[k] \cdot 1, \dots, \phi_{S,i,N_{\text{fft}}}[k] \cdot N_{\text{fft}}$) for each of the data signal samples ($r_{C,i,1}[k], \dots, r_{C,i,N_{\text{fft}}}[k]$) as a function of the predicted sample phase offset ($\phi_{S,i,1}[k], \dots, \phi_{S,i,N_{\text{fft}}}[k]$) and the predicted phase offset ($\phi_A[k]$) of the corresponding one of the data signals ($r_{C,i}[k]$), and
- correcting the phase of each data signal ($r_{C,i}[k]$) by correcting the phase of each of the data signal samples ($r_{C,i,1}[k], \dots, r_{C,i,N_{\text{fft}}}[k]$) thereof as a function of a corresponding one of the phase correction offsets ($\phi_{\text{corr},i}[k]$) ($\phi_{\text{corr},i}[k]$) and a corresponding one of the sample phase correction offsets ($\phi_{S,i,1}[k] \cdot 1, \dots, \phi_{S,i,N_{\text{fft}}}[k] \cdot N_{\text{fft}}$).

7. (Currently Amended) The method of ~~one of the claims 4 to 6~~claim 4, comprising:

- calculating each predicted sample offset (~~$\phi_{S,1}[k], \dots, \phi_{S,N_{\text{FFT}}}[k]$~~) as a function of the predicted phase offset (~~$\phi_A[k]$~~) of the corresponding one of the data signals (~~$r_{C,i}[k]$~~) and a measure being indicative of a distance (x_{k+1}) between a main phase reference point (~~R_{Ce}~~) for the received signal (~~$r_s[n]$~~) and a phase reference point (~~R_{Sk}, S_{Sk}~~) for the preceding one of the data signals (~~$r_{C,i}[k-1]$~~).

8. (Currently Amended) The method of ~~one of the preceding claims~~claim 1, comprising:

- receiving a preamble signal (~~C64~~) preceding the data signals (~~$r_{C,i}[k]$~~),
- calculating an estimated phase arc (~~$H_m[k]$~~) as a function of the preamble signal (~~C64~~),
and
- calculating the estimated phase offset (~~$\phi_{est}[1]$~~) of the data signal (~~$r_{C,i}[1]$~~) subsequent the preamble signal (~~C64~~) as a function thereof and the estimated phase arc (~~$H_m[k]$~~).

9. (Currently Amended) The method of claim 7, comprising:

- defining the main phase reference point (~~R_{Ce}~~) to be indicative of the middle of the preamble signal (~~C64~~) in the time domain, and/or
- defining the phase reference points (~~R_{Sk}~~) to be indicative of the beginning (~~S_{Sk}~~) of the corresponding data signal (~~$r_{C,i}[k]$~~) in the time domain.

10. (Currently Amended) The method according to claim 9, comprising:

- defining a phase reference point (~~R_{St}~~) for the data signal (~~$r_{C,i}[1]$~~) subsequent the preamble signal (~~C64~~) to be indicative of the middle (~~R_{St}~~) of the subsequent data signal (~~$r_{C,i}[1]$~~) in the time domain.

11. (Currently Amended) The method according to ~~one of the claims 4 to 10~~ claim 4, comprising:

- separating each data signal ($r_{c,i}[k]$) in the data signal samples ($r_{c,1}[k], \dots, r_{c,N_{\text{data}}}[k]$) by means of sampling the received signal ($r_s[n]$) or each data signal ($r_{c,i}[k]$).

12.(currently amended) The method according to ~~one of the preceding claims~~ claim 1, comprising:

- receiving an orthogonal frequency division multiplex (~~OFDM~~) signal as the received signal ($r_s[n]$), wherein a stream of symbols thereof represent the stream of data signals ($r_{c,i}[k]$), and at least one preamble symbol thereof represent the preamble signal (~~C64~~).

13.(currently amended) An apparatus for frequency correction in a multicarrier system, comprising:

- receiving means (~~2, 4~~) for receiving a signal comprising a stream of data signals,
- a frequency correction means (~~6~~) for frequency correction of each data signal in response to a corresponding predicted phase offset, and
- a phase locked loop means (~~6, 24~~) for generating the predicted phase offsets, comprising
 - a phase discrimination means (~~12, 14, 16~~) for generating an estimated phase offset for each data signal as a function thereof,
 - a filter means (~~18, 20, 22~~) for receiving estimates phase offsets and generating the predicted phase offset for each data signal as a function of the estimated phase offset thereof and the estimated phase offset of a preceding one of the data signals.

14.(currently amended) The apparatus according to claim 13, characterized by:

- the filter means ~~(18, 20, 22)~~ comprising a first order loop filter means ~~(18)~~ for receiving the estimated phase offsets and an integrator ~~(20)~~ for receiving outputs of the first order loop filter means ~~(18)~~.

15.(currently amended) The apparatus according to claim 14, characterized by:

- a delay means ~~(22)~~ for receiving outputs of the integrator ~~(20)~~.

16.(currently amended) The apparatus according to ~~one of the claims 13 to 15~~ claim 13, characterized by:

- a calculation means ~~(24)~~ for calculating predicted sample phase offsets in response to the predicted phase offsets.

17.(currently amended) The apparatus according to claim 16, characterized by:

- the calculation means ~~(24)~~ being coupled to the filter means ~~(18, 20, 22)~~.

18.(currently amended) The apparatus according to claim 17, characterizes by:

- the calculation means ~~(24)~~ being coupled to the delay means ~~(22)~~.

19.(currently amended) The apparatus according to ~~one of the claims 13 to 18~~ claim 13, characterized by:

- the frequency correction means ~~(6)~~ being coupled to the filter means ~~(18, 20, 22)~~ and the calculation means ~~(24)~~.

20.(currently amended) The apparatus according to ~~one of the claims 13 to 19~~ claim 13, characterized by:

- the frequency correction means (6) and the filter means (18, 20, 22) being adapted to be operated ~~according to the method of one of the claims 1 to 12~~.

21.(currently amended) A transceiver for wireless communication,
characterized by the apparatus according to ~~one of the claims 13 to 20~~claim 13.

22.(currently amended) A transceiver for wireless communication,
characterized by being adapted to be operated by the method according to ~~one of the~~
~~claims 1 to 12~~claim 1.